

# azur 540P/640P

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Phono pre-amplifier

User's manual

The Cambridge Audio logo, featuring a white circle with a smaller white circle inside, creating a stylized 'C' shape.

*Cambridge Audio*

## INTRODUCTION

Thank you for purchasing this Cambridge Audio azur series phono pre-amplifier. It is the result of our ongoing research and development program for over three decades of producing high quality audio products. We hope that you will appreciate the results and enjoy many years of listening pleasure.

### *About this phono pre-amplifier*

The design of a high quality but cost-effective phono pre-amplifier presents a major challenge. Providing first-class performance on an unlimited budget is one matter; achieving the same performance within tight price limits is quite another, and requires all the expertise and experience that Cambridge Audio brings to its product design process. We believe we have succeeded in our aim of creating a first-class affordable product.

The 540P features a moving magnet stage whilst the 640P offers moving magnet and moving coil stages. Both use discrete transistors for the all-important input stages instead of the more common integrated circuits.

Both are designed to produce high gain and linearity, without requiring massive amounts of negative feedback to achieve low distortion. These new models also employ a single-ended 'Class A' gain stage with audiophile passive RIAA equalisation.

High quality components are used throughout such as 1% metal film resistors and close tolerance polypropylene capacitors.

The 640P uses more exotic amplification circuitry to provide even lower distortion and noise plus the higher gain stage for MC cartridges. In addition, the 640P employs multi-parallel capacitors to achieve exceptional RIAA accuracy of only 0.3dB up to 50kHz and features a defeatable subsonic filter.

Now we invite you to sit back, relax and enjoy!



Matthew Bramble  
Technical Director

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## IMPORTANT SAFETY INSTRUCTIONS

Please take a moment to read these notes before installing your Azur phono pre-amplifier, they will enable you to get the best performance and prolong the life of the product. We advise you follow all instructions, heed all warnings and keep the instructions for future reference.

This unit must not be exposed to dripping or splashing water or other liquids. No objects filled with liquid, such as vases, shall be placed on the unit. In the event, switch off immediately, disconnect from the mains supply and contact your dealer for advice.

Do not route the power cable so that it can be walked upon or damaged by other items near it.

Electronic audio components have a running in period of around a week (if used several hours per day). This will allow the new components to settle down, the sonic properties will improve over this time.

If you do not intend to use this unit for a long period of time, unplug it from the mains socket.

To clean the unit, wipe its case with a moist, lint-free cloth. Do not use any cleaning fluids containing alcohol, ammonia or abrasives. Do not spray an aerosol at or near the amplifier.

These units are not user serviceable, never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem. A serious electric shock could result if this precautionary measure is ignored. In the event of a problem or failure, please contact your dealer.

## REAR PANEL CONNECTIONS



**540P**

### MC input sockets (640P only)

If your turntable uses a moving coil cartridge, connect outputs here (0.5-1mV, with 100 ohm 220pF loading).

### MM input sockets

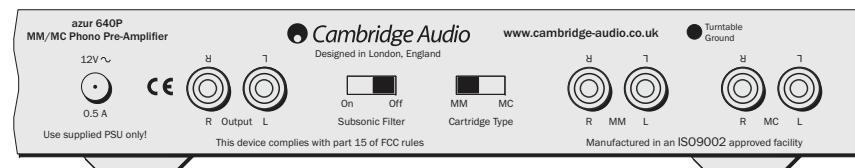
If your turntable uses a moving magnet cartridge, connect outputs here (3-5mV, with 47k ohm 220pF loading).

### Turntable ground

If your turntable has a separate grounding lead then connect here. This provides shielding to the arm and the sensitive circuitry in the turntable.

### Cartridge Type selector switch (640P only)

Match this switch to the cartridge type that your turntable uses. MM for a moving magnet cartridge or MC for a moving coil cartridge.



**640P**

### Subsonic Filter (640P only)

The subsonic filter cuts out very low frequency 'rumble', caused by vinyl imperfections, which can affect your system's performance.

### Output sockets

Use phono cables to connect to any line level input on your amplifier, such as Aux.

**NB. Do not connect to a phono level input.**

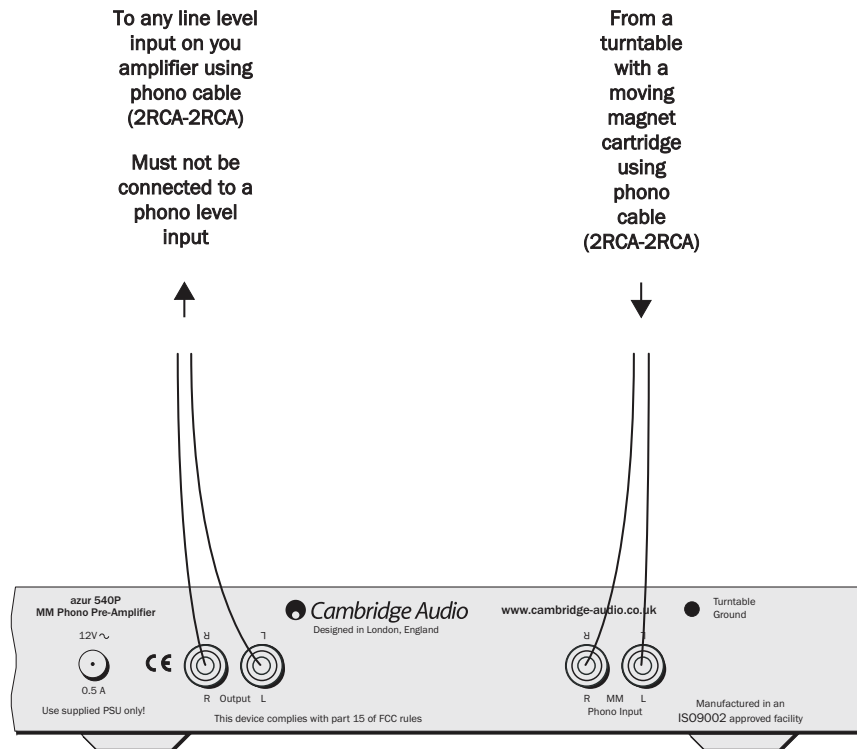
### PSU socket

Once you have completed all connections to the amplifier and turntable, plug the PSU power cable into an appropriate mains socket. The blue LED on the front panel will indicate that the power is on. The unit has been designed to be left permanently powered.

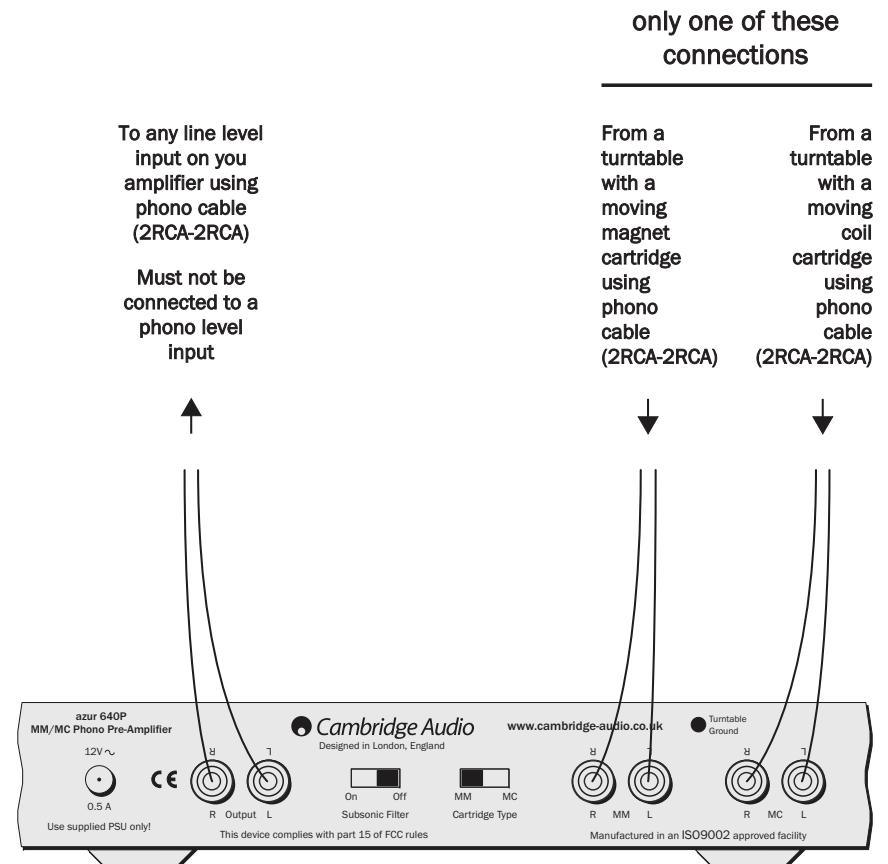
Please note the 640P has an output relay, which after power on takes 15 seconds to come out of mute.

**NB. Only use supplied power supply.**

# 540P/640P Phono pre-amplifier



540P



640P

## TROUBLESHOOTING

### There is no power

Ensure the AC power cord is connected securely.  
Ensure the plug is fully inserted and is switched on.

### There is no sound

Make sure the unit is plugged in.  
Check that your turntable is properly connected.  
Check that your speakers are properly connected.  
Check all connections are secure and correct amplifier input is selected.  
Ensure correct cartridge type has been selected (MM or MC).

### There is no sound on one channel

Check that your speakers are properly connected.  
Check all connections are secure.

### There is a loud buzz or hum

Check turntable or tone arm for ground and connection lead fault.  
Ensure no connections are loose or defective.  
Ensure that your turntable is not too close to the amplifier.

### Volume is too loud/quiet

Check cartridge type matches input type. If a MC cartridge is connected through the MM inputs, volume will be very quiet (and vice versa). Note that it is possible to obtain high level MC cartridges which are designed for an MM input.

## SPECIFICATIONS

	540P	640P (MM)	640P (MC)
Max power consumption	5W	5W	5W
Gain @ 1kHz	39dB	39dB	55dB
Nominal output	300mV	300mV	300mV
Sensitivity for nominal output	3.35mV	3.35mV	0.5mV
THD 20Hz-20kHz	<0.009%	<0.005%	<0.002%
RIAA curve accuracy	<+/-0.65dB 25hz-20kHz	<+/-0.3dB 20Hz-50kHz (subsonic filter off)	<+/-0.3dB 20Hz-50kHz
Signal to noise ratio using Audio Precision RIAA-1 with grounded inputs	>85dB	>86dB	>72dB
Crosstalk @ 20kHz	>76dB	>83dB	>69dB
Dimensions (HxWxD) mm inches	46 x 215 x 133 1.8 x 8.5 x 5.2	46 x 215 x 133 1.8 x 8.5 x 5.2	46 x 215 x 133 1.8 x 8.5 x 5.2
Weight kg lbs	0.8 1.8	0.9 2	0.9 2

## LIMITED WARRANTY

Cambridge Audio warrants this product to be free from defects in materials and workmanship (subject to the terms set forth below). Cambridge Audio will repair or replace (at Cambridge Audio's option) this product or any defective parts in this product. Warranty periods may vary from country to country. If in doubt consult your dealer and ensure that you retain proof of purchase.

To obtain warranty service, please contact the Cambridge Audio authorised dealer from which you purchased this product. If your dealer is not equipped to perform the repair of your Cambridge Audio product, it can be returned by your dealer to Cambridge Audio or an authorised Cambridge Audio service agent. You will need to ship this product in either its original packaging or packaging affording an equal degree of protection.

Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This Warranty is invalid if (a) the factory-applied serial number has been altered or removed from this product or (b) this product was not purchased from a Cambridge Audio authorised dealer. You may call Cambridge Audio or your local country Cambridge Audio distributor to confirm that you have an unaltered serial number and/or you purchased from a Cambridge Audio authorised dealer.

This Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product. This Warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than Cambridge Audio or a

Cambridge Audio dealer, or authorised service agent which is authorised to do Cambridge Audio warranty work. Any unauthorised repairs will void this Warranty. This Warranty does not cover products sold AS IS or WITH ALL FAULTS.

REPAIRS OR REPLACEMENTS AS PROVIDED UNDER THIS WARRANTY ARE THE EXCLUSIVE REMEDY OF THE CONSUMER. CAMBRIDGE AUDIO SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY IN THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY LAW, THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PRACTICAL PURPOSE.

Some countries and US states do not allow the exclusion or limitation of incidental or consequential damages or implied warranties so the above exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other statutory rights, which vary from state to state or country to country.



**azur 540P/640P**



[www.cambridge-audio.co.uk](http://www.cambridge-audio.co.uk)

Part No. AP14509/2





DUE TO THE SENSITIVE NATURE OF THE CIRCUITS INSIDE, THIS UNIT SHOULD NOT BE POSITIONED NEAR MAGNETIC FIELDS (I.E. TRANSFORMERS, MOTORS ETC). THIS MAY CAUSE AN AUDIBLE HUM THROUGH THE CONNECTED LOUDSPEAKERS.

EN RAISON DE LA SENSIBILITÉ DES CIRCUITS INTERNES, CET APPAREIL NE DOIT PAS ÊTRE PLACÉ À PROXIMITÉ DE CHAMPS MAGNÉTIQUES (TRANSFORMATEURS, MOTEURS ÉLECTRIQUES, ETC.), FAUTE DE QUOI UN RONFLEMENT AUDIBLE PEUT SE FAIRE ENTENDRE PAR LES ENCEINTES ACOUSTIQUES RACCORDÉES.

AUFGRUND DER EMPFINDLICHKEIT DER SCHALTKREISE IM INNEREN SOLLTE DAS GERÄT NICHT IN DIE NÄHE VON MAGNETISCHEN FELDERN GESTELLT WERDEN (Z. B. TRANSFORMATOREN, MOTOREN, USW.). DIES KANN ZU EINEM BRUMMEN DER ANGESCHLOSSENEN LAUTSPRECHER FÜHREN.

DEBIDO A LA NATURALEZA SENSIBLE DE LOS CIRCUITOS INTERNOS, ESTA UNIDAD NO DEBE COLOCARSE CERCA DE CAMPOS MAGNÉTICOS. (ES DECIR, TRANSFORMADORES, MOTORES ETC). ESTO PODRÍA PROVOCAR UN ZUMBIDO ACÚSTICO A TRAVÉS DE LOS ALTAVOCES CONECTADOS.

DATA LA NATURA SENSIBILE DEI CIRCUITI INTERNI, QUESTA UNITÀ NON DEVE ESSERE POSTA IN PROSSIMITÀ DI CAMPI MAGNETICI (AD ESEMPIO TRASFORMATORI, MOTORI, ECCETERA) CHE POTREBBERO PROVOCARE L'EMISSIONE DI UN BRUSIO FORTE DAGLI ALTOPARLANTI COLLEGATI.

DIT APPARAAT BEVAT GEVOELIGE ELEKTRONICA, PLAATS HET APPARAAT DAAROM NIET IN DE BUURT VAN KRACHTIGE MAGNETISCHE VELDEN (D.W.Z. TRANSFORMATOREN, ELEKTROMOTOREN, ENZ). DOET U DIT TOCH, DAN KUNNEN DE AANGESLOTEN LUIDSPREKERS EEN HOORBARE BROM PRODUCEREN.

PÅ GRUND AF DE INDVENDIGE KREDSLØBS FØLSOMHED BØR DENNE ENHED IKKE PLACERES I NÆRHEDEN AF MAGNETFELTER (DVS. TRANSFORMERE, MOTORER OSV). DETTE KAN GIVE EN BRUMMEN IGENNEM DE TILSLUTTEDE HØJTALERE.

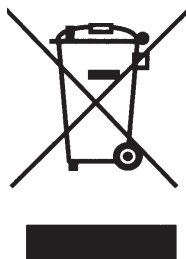
В СВЯЗИ С НАЛИЧИЕМ ВНУТРИ ЧУВСТВИТЕЛЬНЫХ ЭЛЕКТРИЧЕСКИХ ЦЕПЕЙ НЕ СЛЕДУЕТ РАЗМЕЩАТЬ ЭТО УСТРОЙСТВО В БЛИЗИ ИСТОЧНИКОВ МАГНИТНЫХ ПОЛЕЙ (НАПРИМЕР, ТРАНСФОРМАТОРОВ, ЭЛЕКТРОДВИГАТЕЛЕЙ И Т.Д). ЭТО МОЖЕТ ПРИВОДИТЬ К ПОЯВЛЕНИЮ СЛЫШИМОГО ГУЛА В ПОДКЛЮЧЕННЫХ ГРОМКОГОВОРИТЕЛЯХ.

 *Cambridge Audio*

## WEEE SYMBOL

***The crossed-out wheeled bin is the European Union symbol for indicating separate collection for electrical and electronic equipment.***

This product contains electrical and electronic equipment which should be reused, recycled or recovered and should not be disposed of with unsorted regular waste. Please return the unit or contact the authorised dealer from whom you purchased this product for more information.



### Deutsch

Die durchgestrichene Abfalltonne auf Rädern ist das Symbol der Europäischen Union, das das getrennte Sammeln von Elektro- und Elektronikgeräten anzeigt. Dieses Gerät enthält elektrische und elektronische Teile, die wiederverwendet, recycelt oder wiedhergestellt werden können und nicht mit unsortiertem normalem Restabfall entsorgt werden dürfen. Bitte geben Sie das Gerät zurück oder wenden Sie sich für weitere Informationen an Ihren Fachhändler, von dem Sie dieses Gerät gekauft haben.

### Français

La poubelle à roulettes barrée d'une croix est le symbole de l'Union européenne indiquant la collecte séparée des appareils et dispositifs électriques et électroniques. Ce produit contient des dispositifs électriques et électroniques qui doivent être réutilisés, recyclés ou récupérés, et qui ne doivent pas être jetés avec les déchets ordinaires non triés. Veuillez remettre l'appareil au revendeur agréé chez qui vous avez acheté ce produit, ou le contacter pour plus d'informations.

### Español

El cubo con ruedas tachado es el símbolo de la Unión Europea para indicar un conjunto separado de equipos eléctricos y electrónicos. Este producto contiene equipos eléctricos y electrónicos que deben ser reutilizados, reciclados o recuperados y no deben desecharse con los desperdicios habituales sin clasificar. Por favor devuelva el equipo o póngase en contacto con el distribuidor autorizado a quien compró este producto para obtener más información.

### Italiano

Il contenitore a rotelle per rifiuti, sormontato da una croce, rappresenta il simbolo dell'Unione Europea per indicare una raccolta separata dei dispositivi e apparecchiature elettriche ed elettroniche. Questo prodotto contiene parti elettriche ed elettroniche che devono essere riutilizzate, riciclate o recuperate, e non deve pertanto essere gettato assieme ai normali rifiuti non riordinati. Potete restituire quest'apparecchio al negoziante, o mettervi in contatto con il distributore autorizzato presso il quale lo avevate acquistato per ulteriori informazioni.

### Nederlands

De doorgekruiste verrijdbare afvalbak is het symbool van de Europese Unie waarmee wordt aangegeven dat elektrische en elektronische apparatuur gescheiden dient te worden ingezameld. Dit product bevat elektrische en elektronische inrichtingen die opnieuw moeten worden gebruikt, gerecycled of hersteld en niet mogen worden weggegooid bij het ongesorteerde normale afval. Breng het apparaat terug of neem contact op met de bevoegde dealer waarbij u dit product hebt gekocht voor meer informatie.

### Dansk

Den overstregede skraldebøtte er den Europæiske Unions symbol for separat indsamling af elektrisk og elektronisk affald. Dette produkt indeholder elektrisk og elektronisk udstyr, som skal genbruges eller genindvindes og ikke må kasseres sammen med usorteret almindeligt affald. Indlever venligst enheden eller kontakt den autoriserede forhandler, som du har købt dette produkt af, hvis du ønsker mere information.

### Русский

Ящик с колесами и с крестом – это символ Евросоюза для указания на отдельную коллекцию электрического и электронного оборудования. Это изделие содержит электрические и электронные компоненты, которые должны быть повторно использованы, переработаны или восстановлены и не должны утилизироваться совместно с несортированными обычными отходами. Постарайтесь возвратить устройство или обратитесь к авторизованному дилеру, у которого Вы приобрели это изделие, для получения дополнительной информации.